

IN THE CLAIMS

Please amend the claims, as follows:

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1. (Once amended) An optical system, comprising:

a broadband source for providing a broadband optical signal;

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a chirped Bragg grating etalon, responsive to the broadband optical signal, for providing a chirped Bragg grating etalon optical signal having a precise set of the optical reference signals.

2. (Originally filed) An optical system according to claim 1, wherein the chirped Bragg grating etalon includes a pair of chirped Bragg gratings.

3. (Originally filed) An optical system according to claim 2, wherein the precise set of the optical reference signals is determined by the spacing of the chirped Bragg gratings of the chirped Bragg grating etalon.

D' 4. (Originally filed) An optical system according to claim 1, wherein the precise set of the optical reference signals includes a series of peaks covering most of a source spectral width of the broad optical source signal with the power at the beginning and end of the spectrum passed unaffected by the chirped Bragg grating etalon due to the limited bandwidth thereof.

5. (Originally filed) An optical system according to claim 1, wherein the optical system further comprises an optical filter that responds to the chirped Bragg grating etalon optical signal, for providing an optical filter signal having the precise set of the optical reference signals.

6. (Originally filed) An optical system according to claim 5, wherein the optical filter includes an optical bandpass filter.

7. (Originally filed) An optical system according to claim 5, wherein the optical filter includes an additional Bragg grating.

8. (Originally filed) An optical system according to claim 5, wherein the optical filter includes a long-period Bragg grating.

9. (Originally filed) An optical system according to claim 5, wherein the optical filter includes a selective dielectric filter.

D' 10. (Originally filed) An optical system according to claim 9, wherein the selective dielectric filter is a Bragg grating.

11. (Originally filed) An optical system according to claim 1, wherein the optical system further comprises an optical bandpass filter that responds to the chirped Bragg grating etalon optical signal, for providing an optical bandpass filter signal.

12. (Originally filed) The optical system according to claim 1, further comprising:

an optical filter, responsive to the chirped Bragg grating etalon optical signal, for providing at least a portion of the precise set of the optical reference signals to an output port.

13. (Originally filed) The optical system according to claim 12, further comprising:

an optical directional device for directing the chirped Bragg grating etalon optical signal to the optical filter, and directing the at least a portion of the precise set of the optical reference signals to the output port.

14. (Originally filed) The optical system according to claim 13, wherein the optical directional device includes one of an optical circulator and an optical coupler.

D' 15. (Originally filed) The optical system according to claim 12, wherein the optical filter includes a Bragg grating filter for reflecting the at least a portion of the precise set of the optical reference signals to an output port.

16. (Previously Added) An optical source, comprising:  
a broad band source that provides a broadband optical signal; and

an etalon including an optical waveguide having a pair of chirped Bragg gratings disposed therein, wherein the pair of chirped Bragg gratings are optically spaced a predetermined distance to provide a desired filter profile.

17. (Added) An optical source according to claim 16, wherein the desired filter profile includes a precise set of optical reference signals.

18. (Added) An optical source according to claim 17, wherein the precise set of the optical reference signals includes a series of peaks covering most of a source spectral width of the broadband source.

19. (Added) An optical source according to claim 18, wherein the broadband source has a spectrum and the power at the beginning and end of the spectrum is passed substantially unaffected by the etalon.

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20. (Added) An optical source according to claim 1, wherein the precise set of the optical reference signals includes a series of peaks covering most of a source spectral width of the broadband source; and

the broadband source has a spectrum and the power at the beginning and end of the spectrum is passed substantially unaffected by the chirped Bragg grating etalon.

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